Yuxin (Vic) Dong

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Research Interests

Observational Astronomy: Optical and radio follow-up observations of local and global environments of fast radio bursts (FRBs), persistent radio sources (PRSs), gamma-ray bursts (GRBs), Ca-rich transients (CaRTs), star formation, stellar population analyses

Education

Northwestern University, *Ph.D.*, Astronomy & Astrophysics — 2021−present
Advisor: Prof. Wen-fai Fong

Northwestern University, *M.S.*, Astronomy & Astrophysics — 2021−2023
Advisor: Prof. Wen-fai Fong

Purdue University, *B.S.*, Physics Honors, Minors in Mathematics & Astronomy — 2017−2021
Advisor: Prof. Danny Milisavljevic

Publications

First-author:

1. *Searching for Historical Extragalactic Optical Transients Associated with Fast Radio Bursts*
   Y. Dong, C. Kilpatrick, W. Fong, et al. (2025), ApJ, 991, 199 (arXiv)

2. *A Radio Study of Persistent Radio Sources in Nearby Dwarf Galaxies: Implications for Fast Radio Bursts*
   Y. Dong, T. Eftekhari, W. Fong, et al. (2024b), ApJ, 973, 133 (arXiv)

3. *Mapping Obscured Star Formation in the Host Galaxy of FRB 20201124A*
   Y. Dong, T. Eftekhari, W. Fong, et al. (2024a), ApJ, 961, 44 (arXiv)

4. *Physical Properties of the Host Galaxies of Ca-rich Transients*
   Y. Dong, D. Milisavljevic, J. Leja, et al. (2022), ApJ, 927, 199 (arXiv)

Significant Co-author:

1. *The Massive and Quiescent Elliptical Host Galaxy of the Repeating Fast Radio Burst FRB 20240209A*
   T. Eftekhari, **Y. Dong**, W. Fong et al. (2025), ApJL, 979, L22

2. *A Fast Radio Burst in a Compact Galaxy Group at $z \sim 1$*
   A.C. Gordon, W. Fong, S. Simha, **Y. Dong**, et al. (2024), ApJL, 963, L34

3. *Short GRB Host Galaxies II: A Legacy Sample of Redshifts, Stellar Population Properties, and Implications for their Neutron Star Merger Origins*
   A.E. Nugent, W. Fong, **Y. Dong**, et al. (2022), ApJ, 940, 57

4. *Short GRB Host Galaxies I: Photometric and Spectroscopic Catalogs, Host Associations, and Galactocentric Offsets*
   W. Fong, A.E. Nugent, **Y. Dong**, et al. (2022), ApJ, 940, 56

5. *Chronicling the Host Galaxy Properties of the Remarkable Repeating FRB 20201124A*
   W. Fong, **Y. Dong**, J. Leja, et al. (2021), ApJ, 919, L23

6. *The distant, galaxy cluster environment of the short GRB 161104A at $z \sim 0.8$ and a comparison to the short GRB host population*
   A.E. Nugent, W. Fong, **Y. Dong**, et al. (2020), ApJ, 904, 52

Nth-author:

1. *James Webb Space Telescope Observations of the Nearby and Precisely Localized FRB 20250316A: A Potential Near-IR Counterpart and Implications for the Progenitors of Fast Radio Bursts*
   P.K. Blanchard, [incl. **Y. Dong**] et al., (2025), ApJL, 989, L49

2. *FRB 20250316A: A Brilliant and Nearby One-off Fast Radio Burst Localized to 13 pc Precision*
   The CHIME/FRB Collaboration, [incl. **Y. Dong**] et al., (2025), ApJL, 989, L48

3. *Discovery and Localization of the Swift-Observed FRB 20241228A in a Star-forming Host Galaxy*
   A.P. Curtin, [incl. **Y. Dong**] et al., (2025), Submitted to ApJ

4. *A Catalog of Local Universe Fast Radio Bursts from CHIME/FRB and the KKO Outrigger*
   The CHIME/FRB Collaboration, [incl. **Y. Dong**] et al., (2025), ApJSS, 280, 6

5. *The Long-lived Broadband Afterglow of Short Gamma-Ray Burst 231117A and the Growing Radio-Detected Short GRB Population*
   G. Schroeder, W. Fong, C.D. Kilpatrick, [incl. **Y. Dong**] et al., (2025), ApJ, 982, 24

6. *A repeating fast radio burst source in the outskirts of a quiescent galaxy*
   V. Shah, K. Shin, C Leung, [incl. **Y. Dong**] et al., (2025), ApJ, 979, L21

7. *A repeating fast radio burst source in a low-luminosity dwarf galaxy*
   D.M. Hewitt, M. Bhardwaj, A.C. Gordon, [incl. **Y. Dong**] et al., (2024), ApJL, 977, L4

8. *An X-ray Census of Fast Radio Burst Host Galaxies: Constraints on AGN and X-ray Counterparts*
   T. Eftekhari, W. Fong, A.C. Gordon, [incl. **Y. Dong**] et al., (2023), ApJ, 958, 66

9. *The Demographics, Stellar Populations, and Star Formation Histories of Fast Radio Burst Host Galaxies: Implications for the Progenitors*
   A.C. Gordon, W. Fong, C.D. Kilpatrick, [incl. **Y. Dong**] et al. (2023), ApJ, 954, 80

10. *The Broad-band Counterpart of the Short GRB 200522A at z = 0.5536: A Luminous Kilonova or a Collimated Outflow with a Reverse Shock*
    W. Fong, T. Laskar, J. Rastinejad, [incl. **Y. Dong**] et al. (2021), ApJ, 906, 127

11. *A Mildly Relativistic Outflow from the Energetic, Fast-rising Blue Optical Transient CSS161010 in a Dwarf Galaxy*
    D.L. Coppejans, R. Margutti, G. Terreran, [incl. **Y. Dong**] et al. (2020), ApJ, 895, L23

Non-refereed:

1. *Deep MMT upper limit on transient optical emission in the host galaxy of FRB 20250316A*
   Dong on behalf of CHIME/FRB Collaboration (2025), Astronomer's Telegram

2. *Keck Spectroscopy and Redshift of the Putative Host Galaxy of the Repeating FRB 20240209A*
   Dong on behalf of CHIME/FRB Collaboration (2024), Astronomer's Telegram

3. *GRB 200623A: MMT observations at XRT Source #3*
   Rastinejad, **Dong**, et al. (2020), Gamma-ray Coordinates Network

Telescope Proposals

Principal Investigator:

VLA 2026A	55.9 hours
Keck 2026A	1.5 nights
MMT 2025A	1.5 nights
Green Bank Telescope (GBT) 2024B	66 hours
Very Large Array (VLA) 2023B	2.83 hours

Notable Co-Investigator:

Keck 2025B, PI: C. Liu	7 hours
Keck 2025A, PI: A. Gordon	2.5 nights
VLA 2024A, PI: T. Eftekhari	286 hours
VLA 2022A, PI: W. Fong	4.5 hours

Observing Experience

GBT	44.5 hours
Keck (DEIMOS + LRIS)	7 nights
Keck (MOSFIRE)	0.5 nights
Dearborn at Northwestern	10 nights

Teaching & Mentorship

Invited, The Explosive Universe, Guest Lecture for Prof. Floor Broekgaarden, UCSD	Feb. 2026
Research Mentor, Sarah Yaa-Pokuwaa Opoku, Undergraduate, Northwestern University	Feb.–Sept. 2024
DM-inferred redshifts of CHIME/Outrigger FRBs and exposure map cross-matching	Sept. 2025–present
Research Mentor, Erin Nothdorf, Undergraduate/LSST Summer Grant Student, IIT	Jun.–Aug. 2025
Searching for Rubin/LSST SNe associated with FRBs from CHIME-Outriggers	
FRB host data reduction, observing preparations, and FFFF-PZ database maintenance	Jan. 2026–present
Time Domain Astronomy lectures, REACH, Northwestern University	Jun. – Jul. 2025
CIERA Mentor, Amanda Chavez, PhD student, Northwestern University	Sept. 2024–Jun. 2025
CIERA Mentor, Rodrigo Ferrer-Chavez, PhD student, Northwestern University	Sept. 2023–Jun. 2024
Graduate Teaching Assistant, A111, Intro to Astrobiology	March–Jun. 2023
Graduate Teaching Assistant, A120, Highlights of Astronomy	Sept.–Dec. 2022
REACH Summer Mentor, Isabella Deutsch, Senior at UC Berkeley	Jun.–Jul. 2022
Fitting short GRB radio afterglow models	

Presentations

Talks:

Invited FLASH Talk, UCSC	February 2026
Invited STRAND Seminar, UCSD	February 2026
Invited Journal Club, Carnegie Observatories	February 2026
Invited Radio Lunch Seminar, Caltech	February 2026
Invited Fast Radio Transient Sky, ICTS Bengaluru	Ocotber 2025
Rutgers Summer Transient Soirée, Rutgers University	July 2025
FRB 2024, Khao Lak, Thailand	November 2024
Rise_Time, Purdue University	August 2024
Texas in Shanghai Symposium	December 2023
Invited, IAA-DoA Seminar, Peking University	December 2023
Invited, Physics & Astronomy Early Career Research Seminar, Northwestern University	October 2023
The Transient and Variable Universe, University of Illinois Urbana-Champaign	June 2023
Taiwan Fast Radio Bursts Symposium, National Chung Hsing University	February 2023
IAU Symposium 369: The Dawn of Cosmology & Multi-Messenger Studies with Fast Radio Bursts, Busan, South Korea	July 2022
REU Seminar, Northwestern University	July 2022
Early Career Research Meeting	March 2022
Invited, Astro Coffee, The Ohio State University	March 2022

Posters:

CIERA Fellows at 15, Northwestern University	August 2025
243rd American Astronomical Society Meeting, New Orleans, LA	January 2024
Conferences for Undergraduate Women in Physics, UChicago	January 2020
Physics Congress Research Symposium, Providence, RI	November 2019
Summer Undergraduate Research Fellowship Symposium, Purdue University	August 2019

Press Releases and Media Coverage

1. **"Brightest fast radio burst ever detected could help solve an enduring cosmic mystery"** *CNN*, 8/2025.

Based on The CHIME/FRB Collaboration, [incl. **Y. Dong**] et al., 2025. Press released concurrently by multiple institutions including Northwestern and featured in *CNN*, *Science News*, and other major outlets.

2. **"Blob-like' home of farthest-known fast radio burst is collection of seven galaxies"** *Northwestern News*, 1/2024.
   Based on A.C. Gordon, W. Fong, S. Simha, **Y. Dong**, et al., 2024. Joint release by NASA and Northwestern.

3. **"Tracing the Origins of Rare, Cosmic Explosions"** *Keck Observatory Science News*, 11/2022.
   Based on A.E. Nugent, W. Fong, **Y. Dong**, et al., 2022 and W. Fong, A.E. Nugent, **Y. Dong**, et al. 2022. Joint release by Keck Observatory and Northwestern.

Awards & Honors

Best Oral Presentation Award, FRB Symposium Taiwan	2023
NSF Graduate Research Fellowship, Northwestern University	2021−2026
Ramdas Award, Purdue University	2020−2021
NASA Illinois Space Grant Summer Research Fellowship, Northwestern University	2020
Best Poster Award, CUWiP at University of Chicago	2019
Lijuan Wang Memorial Award, Purdue University	2019−2020
David G. Seiler Physics Scholarship, Purdue University	2019−2020
Dean's List, Purdue University	2019−2021
Dr. Dwight E. Neuenschwander Scholarship (Inaugural), Purdue University	2018−2021
Shalim and Paula Sargis Memorial Scholarship, Purdue University	2018−2021

Outreach & Leadership

Referee for *ApJL* and *MNRAS*	2025−present
Co-chair, CHIME/FRB Counterpart Working Group	2025−present
President, Graduate Womxn in Physics (GWIP), Northwestern University	2024−present
Main organizer, FRB Early Career Researcher Journal Club (inter-collaboration)	2023−present
Admission committee member, REACH, Northwestern University	2025
Admission committee member, CIERA REU, Northwestern University	2024
Professional Development Committee Executive, GWIP, Northwestern University	2023−2024
Main organizer, Astronomy on Tap, Northwestern University	2021−present
President/Event Coordinator, Women in Physics, Purdue University	2017−2021
Co-founder/Vice President, Undergraduate Physics Student Council, Purdue University	2019−2021
Volunteer, Saturday Morning Astrophysics at Purdue, Purdue University	2017−2021

Skills

Programming and Data Analysis: Python, LaTeX, CASA, imtool, Prospector, Aperture Photometry Tool, Astroquery, SAOImage DS9, 2020 GROWTH Astronomy School, 2023 Synthesis Imaging Workshop
Supercomputers: Northwestern Quest High Performance Computing cluster, NMASC nmpost cluster
Language – English & Mandarin Chinese, written and conversational proficiency